FAS – Office of Global Analysis (OGA)
United States Department of Agriculture (USDA)
International Operational Agriculture Monitoring Program

USDA Foreign Agricultural Service

Iraq: Crop Progress Report

MY 2008/09

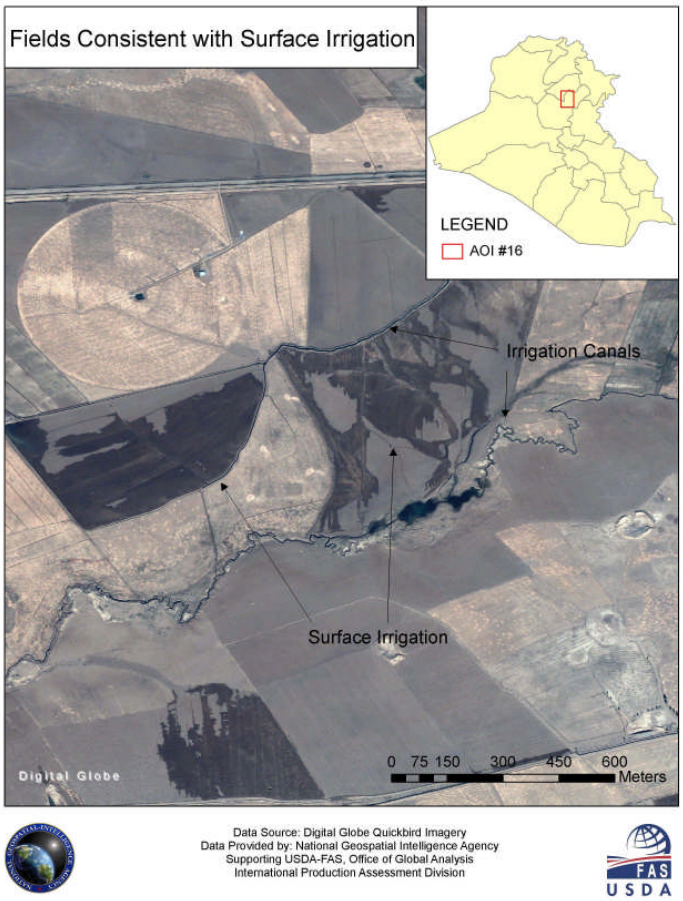
November 21, 2007 (3rd Week Report)

1. Surface Moisture and Cumulative Precipitation remain below normal for northern rainfed wheat and barley regions of Iraq. Northern portions of the Ninawa and Diyala provinces are experiencing approximately9 15consecutive dry days over the past 30 days, and the remaining wheat belt provinces are experiencing 20+ consecutive dry days over the past 30days.

2. Digital Globe Quickbird imagery provided by NGA reveals surface irrigation in "area of interest" #16 (AOI 16) near the northwest border of Salahad Din and At Ta'min provinces. This could be a sign of supplemental irrigation[1] (Figure 1). Imagery also reveals aggregationo f field residue in center pivot irrigation fields consistent with preparation(Figure 2).

3. A multi-temporal change analysis between Digital Globe Quickbird imagery obtained from the NGA Web-based Access and Retrieval Portal (WARP) and recently acquired Quickbird imagery for AOI 16 shows an increase in the construction of center pivot irrigation fields fromMay15th, 2007 and November 14, 2007(Figure 3). *Figure 3* reveals the addition of two center pivot irrigation fields that total~50 hectare (~124 acres).

In other areas [of Iraq], irrigation may be used only as a backup in case there is insufficient rainfall during a crop's growing season, thus termed supplemental irrigation (SI); Since rainfall is the principal source of water for rainfed crops, SI is only applied when rainfall fails to provide essential moisture for improved and stable production; The amount and timing of SI are scheduled not to provide moisture stress-free conditions throughout the growing season, but to ensure a minimum amount of water available during the critical stages of crop growth that would permit optimal instead of maximum yield(Source: Oweis T. and Hachum A. (2005). Water harvesting and supplemental irrigation for improved water productivity of dry farming systems in West Asia and North Africa, *Agricultural Water Management*,80:13, pp. 5773.



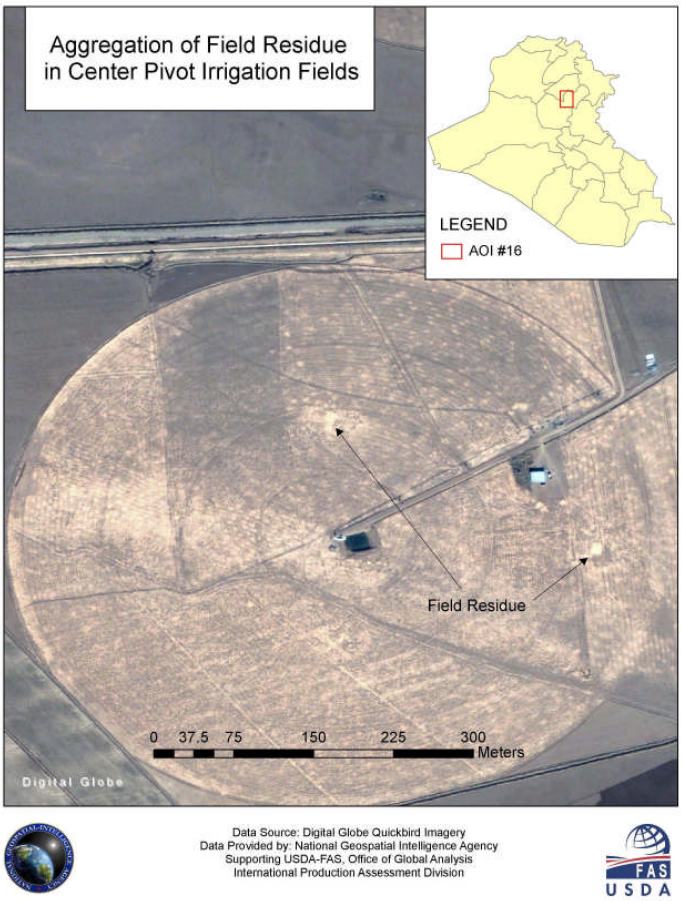


Figure 1: Fields in close proximity to water canals showing signs of surface irrigation Figure 2: Center pivot irrigation fields showing signs of residue aggregation; possible field preparation

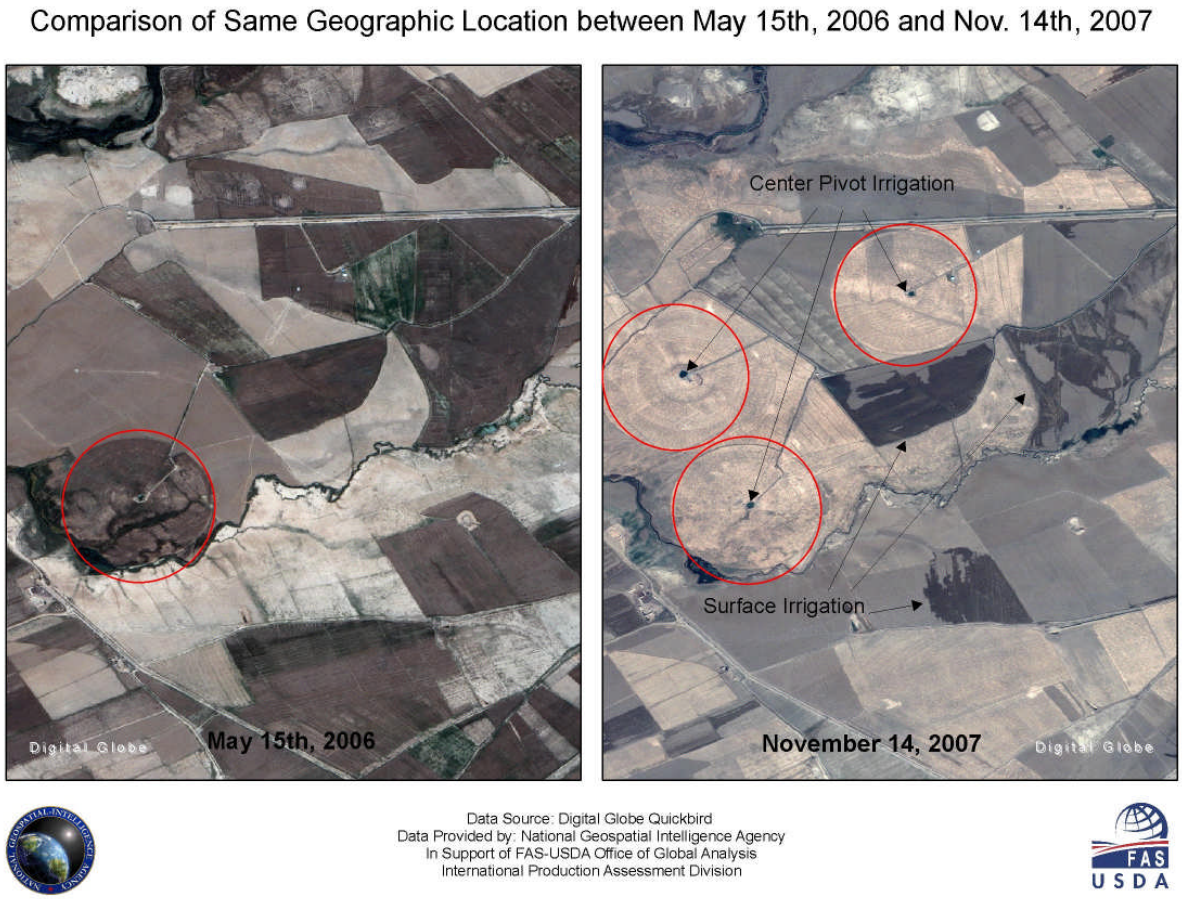


Figure 3: Multi-temporal change analysis reveals the construction of two additional center pivot irrigation fields between May 15th, 2007 and November 14, 2007 (AOI 16)